

**Review of the  
Pennsylvania Department of Environmental Protection  
Bureau of Safe Drinking Water  
Federally Funded Drinking Water Activities  
2017 Advanced Monitoring Report**

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by

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## Table 1 - PWSS Grant Awards

## **Acronyms**

ACR – Annual Compliance Report  
ALE – Lead Action Level Exceedance  
ASDWA – Association of State Drinking Water Administrators  
BOL – Bureau of Laboratories  
BSDW – Bureau of Safe Drinking Water  
BVRB – Bottled, Vended, Retail and Bulk  
CWS – Community Water System  
DDBP – Disinfectants/Disinfection Byproducts Rule  
ETT – Enforcement Targeting Tool  
GPRA – Government Performance Results Act  
GUDI – Ground Water under the Direct Influence of Surface Water  
GWR – Ground Water Rule  
LAP – Laboratory Accreditation Program  
LCR – Lead and Copper Rule  
MCL – Maximum Contaminant Level  
NELAP – National Environmental Laboratory Accreditation Program  
NOV – Notice of Violation  
PADEP – Pennsylvania Department of Environmental Protection  
PADWIS – Pennsylvania Drinking Water Information System  
PWS – Public Water System  
PWSS – Public Water System Supervision  
QMP – Quality Management Plan  
RTCR – Revised Total Coliform Rule  
SDWA – Safe Drinking Water Act  
SDWIS/FED – Safe Drinking Water Information System/Federal Version  
SDWIS/STATE – Safe Drinking Water Information System/State Version  
SFY – State Fiscal Year  
UCMR 4 – Forth Unregulated Contaminant Monitoring Rule

## **Introduction**

This report provides a review of and documents the implementation status of the drinking water program overseen by the Pennsylvania Department of Environmental Protection (PADEP or Pennsylvania), Bureau of Safe Drinking Water for the budget period July 1, 2016 through June 30, 2017 (State Fiscal Year (SFY) 17). The scope of the review covers activities funded by the Public Water System Supervision (PWSS) Program Grant and the review is primarily based on progress reports submitted by PADEP and information obtained through communications with PADEP.

The purpose of this review is intended to:

- Ensure that the Commonwealth of Pennsylvania continues to maintain an effective drinking water program to timely fulfill commitments contained in the PWSS grant work plan;
- Ensure that all grant requirements are met, including programmatic terms and conditions;
- Ensure all programmatic statutory and regulatory requirements are met;
- Assess resources available to PADEP in order to fully implement the Program; and
- Evaluate implementation barriers, issues or improvements.

Whenever a major issue is identified, if necessary, EPA requires that PADEP submit a program enhancement plan.

## **Summary of Review**

PADEP has met all of the programmatic terms and conditions on the PWSS grant award. PADEP made regular drawdowns of PWSS funds during the reporting period to carry out the work stated in the work plan.

PADEP is currently experiencing a significant staffing shortage. Pennsylvania's PWSs/sanitarian workload is more than double the national average. PADEP is addressing the staffing shortage with their proposed fee rulemaking.

The number of sanitary survey inspections completed by PADEP has continued to steadily decline. Recent numbers continue to fall short of the Government Performance Results Act (GPRA) measure and the national average. PADEP's proposed fee rulemaking will generate the revenue needed to fill the existing gap in staffing levels and improve program performance.

On November 12, 2015, PADEP submitted their revised Quality Management Plan. The Plan is effective until April 22, 2021.

PADEP consistently reported violation and inventory data to EPA. EPA received Pennsylvania's semi-annual progress reports in a timely manner. The reports described progress

made in accordance with the work plan and provided actual outputs/outcomes against planned outputs/outcomes.

Pennsylvania's principal state laboratory received continued NELAP accreditation for 2017. For the drinking water analytes without NELAP certification, PADEP has identified other NELAP-accredited labs to assure analytical capability during emergency or other special circumstances.

## **Resources Available to PADEP's Drinking Water Program**

### Funding

Pennsylvania's PWSS grant is based on a two-year project period. The subject of this advanced monitoring review is Pennsylvania's PWSS grant number F00336517. The project period for this grant runs from July 1, 2016 through June 30, 2018, encompassing state fiscal years 2017 and 2018. This review is based on the first year of the two-year grant.

For FY 2017, PADEP requested \$4,140,000 in PWSS funding. EPA received final PWSS grant appropriations in May 2017 of which \$4,087,000 was allotted to Pennsylvania. EPA awarded the money in three separate grant awards as follows: \$1,570,967, \$1,534,033 and \$982,000.

EPA made an additional award to PADEP in the amount of \$568,867 on June 6, 2017. This money was left on the previous grant award (F00336515) due to an oversight by Pennsylvania.

The Federal Financial Report showed that the grant was financially closed on 10/3/16 and the funds remaining on the grant were deobligated. Pennsylvania was instructed on how to reapply for the funds and an award was made. PADEP made regular and timely drawdowns of the grant funding.

**Table 1 – PWSS Grant Awards**

	<b>FY 2017</b>	
	<b>Requested</b>	<b>Awarded (Final Allotment)</b>
PWSS Grant Award	\$4,140,000	\$4,087,000

### EPA In-Kind Services

The PWSS grant includes \$24,200 of EPA In-Kind Services. In April 2017, EPA-contracted instructors conducted a 3.5-day sanitary survey training course for 22 PADEP drinking water staff. The attendees consisted predominantly of field inspectors with less than two years of experience. The objective of the training was to develop capabilities for conducting an effective and comprehensive review of a public water system, including the eight essential elements of a

sanitary survey as defined by EPA and State guidance. EPA In-Kind services provided both cost savings and convenience benefits to PADEP.

### Staffing

Pennsylvania is currently experiencing a significant staffing shortage. Beginning in 2009, PADEP program staffing levels have consistently declined. In 2009, PADEP employed 84 sanitarians in the Safe Drinking Water Program. As of October 30, 2017, Pennsylvania's current number of sanitarians is down by more than 25 percent at 61. The declining staffing levels has led to an increasing workload for each sanitarian. As per a 2012 Association of State Drinking Water Administrators' (ASDWA) survey, the national average of PWSs/sanitarian is 67. In 2009, Pennsylvania's average workload was 118 PWSs/sanitarian. Currently, the average workload is more than two times the national average at 158 PWSs/sanitarian.

EPA is encouraged by Pennsylvania's activities to address the shortage in staffing. PADEP's proposed rulemaking to increase permit fees and establish new annual fees for all drinking water systems would provide the revenue needed to fill the existing gap in staffing levels and improve program performance.

### **Reporting**

#### Progress Reports

PADEP has consistently provided semi-annual progress reports for the PWSS grant. The two FY 2017 required progress reports were received on February 15, 2017 and August 22, 2017.

#### Annual Public Water System Compliance Report (ACR)

PADEP submitted their 2016 ACR as required by the Safe Drinking Water Act (SDWA) on June 30, 2017.

#### Quality Management Plan (QMP)

PADEP submitted their most recent QMP for Pennsylvania's Safe Drinking Water Program on November 12, 2015. Region III reviewed and approved the plan on April 22, 2016. The approved plan is effective for five years with the next renewal due by April 22, 2021.

EPA commends Pennsylvania's commitment to timely submission of various reports and continuous improvements in the reported information.

## **Data Management**

PADEP uses and maintains their own state database as the primary database of record called the Pennsylvania Drinking Water Information System (PADWIS). Pennsylvania uses PADWIS in place of the Safe Drinking Water Information System/State Version (SDWIS/State).

Pennsylvania is required to report on a quarterly frequency (within 45 days of the end of each quarter) all data related to inventory, compliance and enforcement from PADWIS to the Safe Drinking Water Information System/Federal Version (SDWIS/FED). During the reporting period, PADEP submitted eight updates to SDWIS/FED.

Over the past year, PADEP has been working on the development, implementation and compliance determination for the Revised Total Coliform Rule (RTCR). Pennsylvania has also been working on PADWIS programming for the Stage 2 Disinfectants/Disinfection Byproducts Rule (DDBP) and RTCR.

## **Compliance and Enforcement**

During the reporting period, Pennsylvania took 339 enforcement actions against public water systems. Of these, 307 were formal actions such as the issuance of a Notice of Violation (NOV). The remaining 32 enforcement actions were informal actions. Pennsylvania assessed a total of \$174,862 in fines and penalties and collected \$179,362, which includes payments against violations and penalties assessed during earlier reporting periods.

Also during the reporting period, Pennsylvania conducted 122 Level 2 Assessments under the Revised Total Coliform Rule (RTCR).

In 2009, EPA devised the Enforcement Targeting Tool (ETT) to help address violations of public water systems. The ETT assigns a point value to individual violations at each PWS such that the total value reflects overall severity and duration of non-compliance by the system. EPA and PADEP jointly participate in quarterly conference calls to address the systems listed on the ETT reports. During the four quarters of the reporting period, PADEP provided responses for 293 high priority water systems.

## **Regulation Development**

PADEP does not have primacy for all National Primary Drinking Water Regulations however all federal rules have been incorporated into Pennsylvania's Chapter 109 Safe Drinking Water Regulations. PADEP has the authority to enforce all state rules. Below is the status of each outstanding rule.

### Revised Total Coliform Rule (RTCR)

EPA received PADEP's Extension Agreement request for the RTCR on February 12, 2015 and approved the request on April 7, 2015. EPA received PADEP's final primacy revision application on February 13, 2017 and is currently reviewing the submission.

### Long Term 2 Enhanced Surface Water Treatment Rule (LT2)

EPA received PADEP's final primacy revision application for LT2 on February 23, 2010. LT2 was included in a primacy revision package along with GWR and Stage 2 DDBP. EPA requested and received revised crosswalks to demonstrate how Pennsylvania's Bottled, Vended, Retail and Bulk (BVRB) regulations in Subchapter J comply with each federal regulation in the primacy package. EPA has determined that primacy for LT2 can be granted and is currently moving forward in the approval process.

### Ground Water Rule (GWR)

EPA received PADEP's final primacy revision application for GWR on February 23, 2010. GWR was included in a primacy revision package along with LT2 and Stage 2 DDBP. EPA requested and received revised crosswalks to demonstrate how Pennsylvania's BVRB regulations in Subchapter J comply with each federal regulation in the primacy package. EPA has determined that primacy for GWR can be granted and is currently moving forward in the approval process.

### Stage 2 Disinfectants/Disinfection Byproducts Rule (Stage 2 DDBP)

EPA received PADEP's final primacy revision application for Stage 2 DDBP on February 23, 2010. Stage 2 DDBP was included in a primacy revision package along with LT2 and GWR. EPA requested and received revised crosswalks to demonstrate how Pennsylvania's BVRB regulations in Subchapter J comply with each federal regulation in the primacy package. As of this report, there are remaining issues that must be resolved before EPA can grant Stage 2 DDBP primacy. PADEP has recently communicated to EPA that they plan to include all regulatory revisions needed to achieve primacy for Stage 2 DDBP in their Disinfection Requirements Rule regulation update.

### Phase II/V Rule & Arsenic Rule

EPA received PADEP's final primacy revision application for the Phase II/V Rule on January 13, 1995 and the Arsenic Rule on January 14, 2003. Pennsylvania's Arsenic Rule was adopted by reference. Initially, EPA had concerns regarding Pennsylvania's Phase II/V waiver program and in 2010, PADEP revised their waiver program to address these concerns. In 2015, revisions were published in Pennsylvania's Chapter 109 clarifying PCB, Dioxin and Asbestos waiver requirements. PADEP presented proposed revisions to the Technical Assistance Center (TAC)



Board on July 13, 2017. EPA requests PADEP submit a complete primacy revision application including crosswalks for the BVRB regulations in Subchapter J.

## **Rule Implementation**

Pennsylvania fully implemented all drinking water regulations and provided assistance to EPA with activities related to the fourth Unregulated Contaminant Monitoring Rule (UCMR 4). Below are implementation highlights for the RTCR and LCR.

### **Revised Total Coliform Rule (RTCR)**

Implementing the RTCR was very resource intensive for Pennsylvania, and PADEP conducted 122 RTCR Level 2 assessments over the reporting period.

In 2015, Pennsylvania requested EPA's assistance with the enforcement of routine monthly coliform monitoring for all Pennsylvania systems beginning April 1, 2016. PADEP had an approved extension agreement in place for the RTCR until February 13, 2017. The extension agreement outlined which agency would implement the various parts of the regulation during the extension period. Both agencies successfully worked together to address the RTCR violations with enforcement actions during this time period.

### **Lead and Copper Rule (LCR)**

In early 2016, EPA conducted a desktop review to assess the prevalence of lead action level exceedances (ALEs) within Pennsylvania and their resolutions through subsequent follow-up actions. In November 2016, EPA conducted a file review to evaluate PADEP's implementation of the rule focusing on other elements of the rule (e.g., sample sites, monitoring schedules, and ALE determination), with a more detailed assessment of Pennsylvania's fulfillment of consumer notification and public education requirements. EPA provided the findings of the review in a report to PADEP dated April 13, 2017. Pennsylvania responded with written comments on July 20, 2017.

## **Surveillance and Technical Assistance Activities**

### **Sanitary Surveys**

The Federal requirement for sanitary survey inspections, under the Surface Water Treatment Rules, is every three years for community water systems and every five years for non-community water systems.

For the reporting period (July 1, 2016 through June 30, 2017), PADEP conducted a total of 1,695 sanitary surveys. Of these, 380 were groundwater community water systems, 121 surface water or GUDI community water systems, 240 NTNCWS and 954 TNCWS.

Since 2009, the number of sanitary survey inspections completed by PADEP has continued to steadily decline. Recent numbers continue to fall short of the Government Performance Results Act (GPRA) measure and the national average. EPA has expressed to Pennsylvania that the failure to complete sanitary survey inspections in a timely manner can have serious public health implications as major violations could be going unidentified. EPA is encouraged by Pennsylvania's activities to address this issue. PADEP's proposed rulemaking to increase permit fees and establish new annual fees will provide the revenue needed to fill the existing gap in staffing levels and improve program performance.

### Other Inspections

PADEP conducted 1,853 inspections (other than sanitary surveys). Partial inspections of water systems accounted for 1,422. PADEP also conducted 347 follow-up inspections and 84 inspections due to complaints.

### Permits

PADEP issues permits to PWSs to ensure that the design and construction will be capable of compliance with all applicable drinking water standards. For the reporting period, PADEP issued 1,056 permits to drinking water systems. Of these, 505 were construction permits and 551 were operation permits.

## **Laboratory Capacity**

The PADEP Bureau of Laboratories (BOL) serves as the principal state laboratory for the Commonwealth of Pennsylvania. In addition, BOL operates a dual laboratory accreditation program that evaluates and accredits environmental laboratories in accordance with State and Federal Regulations.

BOL was issued their continued National Environmental Laboratory Accreditation Program (NELAP) accreditation for 2017 by the New Jersey Department of Environmental Protection (NJDEP). The recognition letter was sent to PADEP on January 13, 2017. EPA accepts NELAP accreditation as meeting the laboratory certification requirements of the Safe Drinking Water Act (SDWA).

BOL is not accredited for the analysis of Asbestos, PCBs as Decachlorobiphenyl (EPA method 508A) and 2,3,7,8-TCDD (Dioxin). For these drinking water analytes without NELAP certification, PADEP has identified other NELAP-accredited labs to assure analytical capability during emergencies or other special circumstances.

Environmental laboratories may choose to seek accreditation from BOL in accordance with the Pennsylvania State Environmental Laboratory Accreditation Program (State) or NELAP. Both the State and NELAP accreditations are available for the drinking water matrices.

Environmental laboratories seeking Asbestos accreditation from BOL must first obtain accreditation from another NELAP-recognized accreditation body and then apply for secondary accreditation from BOL.

In addition to the main laboratory, BOL also has four mobile analytical laboratories (mobilabs) that are available to provide on-site environmental testing throughout the Commonwealth of Pennsylvania. Each mobilab has unique analytical capabilities and can be used separately or in tandem with other mobilabs. They have the capability to analyze water samples as well as air, soil and other matrices for both organic and inorganic contaminants. The mobilabs are maintained ready to respond to environmental emergencies.